Claims

[c1]   What is claimed is:

1. A method for calculating an initial security count value for a new channel in a wireless communications device, the wireless communications device comprising:

a first security key;

a second security key; and

a plurality of established channels, each established channel having a corresponding security count value and utilizing a security key, at least one of the established channels utilizing the first security key;

the method comprising:

assigning the second security key to the new channel;

utilizing a first set to obtain a first value, the first set consisting of corresponding security count values of the established channels that utilize the second key, the first value being at least as great as the x most significant bits (MSB_x) of a value in the first set; and

setting the MSB_x of the initial security count value for the new channel equal to the first value;

wherein if the first set is empty, then the first value is set to a first predetermined value.

[c2]   2. The method of claim 1 wherein the first predetermined value is zero.

[c3]   3. The method of claim 2 wherein the first value is at least as great as the MSB_x of the greatest value in the first set.

[c4]   4. The method of claim 3 wherein the first value is greater than the MSB_x of the greatest value in the first set.

[c5]   5. A method for providing an initial security count value to a new channel in a wireless communications device, the method comprising:

establishing at least a first channel, each first channel utilizing a first security key and having a corresponding security count value;

performing a security mode reconfiguartion to change utilization of each first channel from the first security key to a second security key according to an activation time for each first channel; wherein upon utilization of the second security key, the corresponding security count value for the first channel is changed;

initiating establishment of a second channel that utilizes the second security key;

utilizing a first set to obtain a first value, the first set consisting of corresponding security count values of the established channels that utilize the second key, the first value being at least as great as the x most significant bits (MSB_x) of a value in the first set; and

setting the MSB_x of the initial security count value for the second channel equal to the first value;

wherein if the first set is empty, then the first value is set to a first predetermined value.

[c6]   6. The method of claim 5 wherein the first set includes the corresponding security count values of all first channels utilizing the second security key when initiating the establishment of the second channel.

[c7]   7. The method of claim 6 wherein the predefined value is zero.

[c8]   8. The method of claim 5 wherein the first value is at least as great as the MSB_x of the greatest value in the first set.

[c9]   9. The method of claim 8 wherein the first value is greater than the MSB_x of the greatest value in the first set.